

Permit No. VA0028258
Effective Date: TBD
Expiration Date: TBD

AUTHORIZATION TO DISCHARGE UNDER THE
VIRGINIA POLLUTANT DISCHARGE ELIMINATION SYSTEM
AND

THE VIRGINIA STATE WATER CONTROL LAW

In compliance with the provisions of the Clean Water Act as amended and pursuant to the State Water Control Law and regulations adopted pursuant thereto, the following owner is authorized to discharge in accordance with the information submitted with the permit application, and with this permit cover page, and Parts I and II of this permit as set forth herein.

Owner: Estate of W.P. Beard c/o C. Ray Beard
Facility Name: Red Hill Utility Company LLC
County: Prince George
Facility Location: 3812 Puddledock Road

The owner is authorized to discharge to the following receiving stream:

Stream: Harrison Branch
River Basin: Appomattox River
River Subbasin: NA
Section: 5b
Class: III
Special Standards: PWS

Water Permit Manager, Piedmont Regional Office

Date

A. Limitations and Monitoring Requirements

1. During the period beginning with the permit's effective date and lasting until the end of the compliance schedule⁽⁴⁾, the permittee is authorized to discharge from outfall number **001**. Such discharges shall be limited and monitored at Outfall 001 by the permittee as specified below:

Effluent Characteristics	Discharge Limitations					Monitoring Requirements		
	Monthly Average		Weekly Average		Min	Max	Frequency	Sample Type
Flow (MGD) ⁽¹⁾	NL		NA		NA	NL	1 per Day	Estimate
pH (standard units)	NA		NA		6.0	9.0	1 per Day	Grab
cBOD ₅ ⁽²⁾	16 mg/L	2400 g/d	24 mg/L	3500 g/d	NA	NA	1 per Month	Grab
Total Suspended Solids (TSS) ⁽²⁾	30 mg/L	4400 g/d	45 mg/L	6600 g/d	NA	NA	1 per Month	Grab
Total Kjeldahl Nitrogen (TKN) ⁽²⁾	11 mg/L	1600 g/d	16 mg/L	2400 g/d	NA	NA	1 per Month	Grab
Ammonia as N	5.6 mg/L		5.6 mg/L		NA	NA	1 per Month	Grab
Total Residual Chlorine (TRC) ⁽³⁾	0.0087 mg/L		0.011 mg/L		NA	NA	1 per Day	Grab
Dissolved Oxygen	NA		NA		5.0 mg/L	NA	1 per Day	Grab
E. coli (N/100 mL)	126 Geometric Mean		NA		NA	NA	2 per Month	Grab (Between 10am and 4 pm)

"NL" means no limitation is established. Monitoring and reporting however are required.

"NA" means not applicable.

(1) The design flow of this treatment facility is **0.039** MGD. See Part I.C.1 for additional flow requirements.

(2) The limitations are expressed in two significant digits.

(3) See Part I.B for additional TRC requirements

(4) See Part I.D. for Compliance Schedule.

- a. There shall be no discharge of floating solids or visible foam in other than trace amounts.
- b. At least 85% removal for BOD₅ and TSS must be attained for this effluent.

A. Limitations and Monitoring Requirements

2. During the period beginning with the conclusion of the schedule of compliance in Part I.D. and lasting until the the permit's expiration date, the permittee is authorized to discharge from outfall number **001**. Such discharges shall be limited and monitored at Outfall 001 by the permittee as specified below:

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS					MONITORING REQUIREMENTS		
	MONTHLY AVERAGE		WEEKLY AVERAGE		MIN	MAX	FREQUENCY	SAMPLE TYPE
Flow (MGD) ⁽¹⁾	NL		NA		NA	NL	Continuous	Totalizing, Indicating, & Recording
pH (standard units)	NA		NA		6.0	9.0	1 per Day	Grab
cBOD ₅ ⁽²⁾	16 mg/L	2400 g/d	24 mg/L	3500 g/d	NA	NA	1 per Month	Grab
Total Suspended Solids (TSS) ⁽²⁾	30 mg/L	4400 g/d	45 mg/L	6600 g/d	NA	NA	1 per Month	Grab
Ammonia as N	3.23 mg/L		3.23 mg/L		NA	NA	1 per Month	Grab
Total Residual Chlorine (TRC) ⁽³⁾	0.0087 mg/L		0.011 mg/L		NA	NA	1 per Day	Grab
Dissolved Oxygen	NA		NA		5.0 mg/L	NA	1 per Day	Grab
E. coli (N/100 mL)	126 Geometric Mean		NA		NA	NA	2 per Month	Grab (Between 10am and 4 pm)

"NL" means no limitation is established. Monitoring and reporting however are required.

"NA" means not applicable.

(1) The design flow of this treatment facility is **0.039** MGD. See Part I.C.1 for additional flow requirements.

(2) The limitations are expressed in two significant digits.

(3) See Part I.B for additional TRC requirements.

- a. There shall be no discharge of floating solids or visible foam in other than trace amounts.
- b. At least 85% removal for TSS must be attained for this effluent.

B. Additional Effluent Limitations and Monitoring Requirements

1. Total Residual Chlorine Limitations and Monitoring Requirements Applying to the Contact Tank
 - a. The permittee shall monitor the TRC at the outlet of each operating chlorine contact tank once per day by grab sample.
 - b. No more than 3 of all samples taken at the outlet of the chlorine contact tank shall be less than 1.5 mg/L for any one calendar month (DMR parameter 157).
 - c. No TRC sample collected at the outlet of the chlorine contact tank shall be less than 0.60 mg/L (DMR parameter 213).
 - d. If dechlorination facilities exist the samples above shall be collected prior to dechlorination.
2. If chlorine disinfection is not used, then E. coli shall be limited and monitored by the permittee as specified below:

DISCHARGE LIMITATIONMONITORING REQUIREMENTSMONTHLY GEOMETRIC MEAN

E.coli 126 N/100 mL

FREQUENCY

1 per Week

SAMPLE TYPEGrab
(Between
10 am and 4 pm)

The above requirements, if applicable, shall substitute for the TRC requirements delineated elsewhere in Part I.A.

C. Other Requirements and Special Conditions

1. **95% Capacity Reopener** A written notice and a plan of action for ensuring continued compliance with the terms of this permit shall be submitted to the Department of Environmental Quality's Piedmont Regional Office when the monthly average flow influent to the sewage treatment plant reaches 95 percent of the design capacity authorized in this permit for each month of any three consecutive month period. The written notice shall be submitted within 30 days and the plan of action shall be received at the Piedmont Regional Office no later than 90 days from the third consecutive month for which the flow reached 95 percent of the design capacity. The plan shall include the necessary steps and a prompt schedule of implementation for controlling any current or reasonably anticipated problem resulting from high influent flows. Failure to submit an adequate plan in a timely manner shall be deemed a violation of this permit.
2. **Operation and Maintenance Manual Requirement** The permittee shall review the existing Operations and Maintenance (O & M) Manual and notify the DEQ Piedmont Regional Office in writing within 90 days of the effective date of this permit whether it is still accurate and complete. If the O & M Manual is no longer accurate and complete, a revised O & M Manual shall be submitted for approval with the above required notification. The permittee will maintain an accurate, approved O & M Manual for the treatment works. This manual shall include, but not necessarily be limited to, the following items, as appropriate:

- a. Techniques to be employed in the collection, preservation and analysis of effluent samples (and sludge samples if sludge analyses are required);
- b. Discussion of Best Management Practices, if applicable;
- c. Treatment works design; treatment works operation, routine preventive maintenance of units within the treatment works, critical spare parts inventory and record keeping;
- d. A plan for the management and/or disposal of waste solids and residues.
- e. Procedures for handling, storing, and disposing of all wastes, fluids, and pollutants characterized in Part I.C.9. below that will prevent these materials from reaching State waters.
- f. Procedures for measuring and recording the duration and volume of treated wastewater discharged.

Any changes in the practices and procedures followed by the permittee shall be documented and submitted for DEQ staff approval within 90 days of the effective date of the changes. Upon approval of the submitted manual changes, the revised manual becomes an enforceable part of the permit. Noncompliance with the O & M Manual shall be deemed a violation of the permit.

- 3. **Licensed Operator Requirement** The permittee shall employ or contract at least one Class III licensed wastewater works operator for this facility. The license shall be issued in accordance with Title 54.1 of the Code of Virginia and the regulations of the Board for Waterworks and Wastewater Works Operators. The permittee shall notify the Department in writing whenever he is not complying, or has grounds for anticipating he will not comply with this requirement. The notification shall include a statement of reasons and a prompt schedule for achieving compliance.
- 4. **Reliability Class** The permitted treatment works shall meet Reliability Class II.
- 5. **Financial Assurance and Disclosure to Purchasers** The permittee shall provide continuous coverage to implement the approved closure plan until released from financial assurance requirements by the State Water Control Board. If a transfer of ownership or operational control of this facility occurs, the permittee shall comply with the requirements of 9 VAC 25-650 until the new owner or operator has demonstrated compliance with the requirements of 9 VAC 25-650. Failure to maintain adequate financial assurance in accordance with 9 VAC 25-650 shall be a basis for termination of this VDPES permit.

During the term of this VPDES permit, the permittee shall revise the closure plan implementation cost estimate concurrently with any revision made to the closure plan which increases the closure plan cost.

At a minimum, the permittee shall annually adjust the closure plan implementation cost estimate in accordance with 9 VAC 25-650 within 60 days prior to the anniversary date of the establishment of the approved financial assurance mechanism.

The permittee shall disclose the provisions of this permit to all purchasers of property served by this permitted facility in accordance with Section 55-519 of the Code of Virginia.

6. **Sludge Reopener** The Board may promptly modify or revoke and reissue this permit if any applicable standard for sewage sludge use or disposal promulgated under Section 405(d) of the Clean Water Act is more stringent than any requirements for sludge use or disposal in this permit, or controls a pollutant or practice not limited in this permit.
7. **Sludge Use and Disposal** The permittee shall conduct all sewage sludge use or disposal activities in accordance with the Sludge Management Plan (SMP) approved with the issuance of this permit. Any proposed changes in the sewage sludge use or disposal practices or procedures followed by the permittee shall be documented and submitted for DEQ approval 90 days prior to the effective date of the changes. Upon approval, the revised SMP becomes an enforceable part of the permit. The permit may be modified or alternatively revoked and reissued to incorporate limitations or conditions necessitated by substantive changes in sewage sludge use or disposal practices.

8. **Compliance Reporting**

- a. The maximum quantification levels (QL) shall be as follows:

<u>Effluent Characteristic</u>	<u>Quantification Level</u>
cBOD ₅	5 mg/L
TSS	1.0 mg/L
TRC	0.10 mg/L
TKN	0.50 mg/L
Ammonia-N	0.20 mg/L

- b. Reporting:

Monthly Average -- Compliance with the monthly average limitations and/or reporting requirements for the parameters listed in a. above shall be determined as follows: All concentration data below the QL listed in a. above shall be treated as zero. All concentration data equal to or above the QL listed in a. above shall be treated as it is reported. An arithmetic average shall be calculated using all reported data for the month, including the defined zeros. This arithmetic average shall be reported on the Discharge Monitoring Report (DMR) as calculated. If all data are below the QL, then the average shall be reported as "<QL". If reporting for quantity is required on the DMR and the calculated concentration is <QL, then report "<QL" for the quantity. Otherwise use the concentration data and flow data for each sample day to determine the daily quantity and report the average of the calculated daily quantities.

Weekly Average -- Compliance with the weekly average limitations and/or reporting requirements for the parameters listed in a. above shall be determined as follows: All concentration data below the QL listed in a. above shall be treated as zero. All concentration data equal to or above the QL listed in a. above shall be treated as reported. An arithmetic average shall be calculated using all reported data, including the defined zeros, collected within each complete calendar week and entirely contained within the reporting month. The maximum value of the weekly averages thus determined shall be reported on the DMR. If all data are below the QL, then the average shall be reported as "<QL". If

reporting for quantity is required on the DMR and the calculated concentration is <QL, then report "<QL" for the quantity. Otherwise use the concentration data and flow data for each sample day to determine the daily quantity and report the average of the calculated daily quantities.

- c. Any single datum required shall be reported as "<QL" if it is less than the QL in section a. above. Otherwise the numerical value shall be reported.
- d. **Significant Digits** - The permittee shall report at least the same number of significant digits as the permit limit for a given parameter. Regardless of the rounding convention used by the permittee (i.e., 5 always rounding up or to the nearest even number), the permittee shall use the convention consistently, and shall ensure that consulting laboratories employed by the permittee use the same convention.
9. **Materials Handling/Storage** Any and all product, materials, industrial wastes, and/or other wastes resulting from the purchase, sale, mining, extraction, transport, preparation, and/or storage of raw or intermediate materials, final product, by-product or wastes, shall be handled, disposed of, and/or stored in such a manner so as not to permit a discharge of such product, materials, industrial wastes, and/or other wastes to State waters, except as expressly authorized.
10. **CTC, CTO Requirement** The permittee shall, in accordance with the DEQ Sewage Collection and Treatment Regulation (9VAC 25-790), obtain a Certificate to Construct (CTC), and a Certificate to Operate (CTO) from the DEQ prior to constructing wastewater treatment works and operating the treatment works, respectively. Non-compliance with the CTC or CTO shall be deemed a violation of the permit.
11. **Total Maximum Daily Load Reopener** This permit shall be modified or alternatively revoked and reissued if any approved wasteload allocation procedure, pursuant to Section 303(d) of the Clean Water Act, imposes wasteload allocations, limits or conditions on the facility that are not consistent with the permit requirements.

D. Schedule of Compliance

The permittee shall achieve compliance with the ammonia limitations and monitoring requirements in Part I.A.2 in accordance with the following schedule.

SCHEDULE OF COMPLIANCE	
1. Prepare progress reports	Annually from the effective date of the permit.
2. Achieve compliance with the final effluent limitations for ammonia	Within 4 years of the permit effective date

No later than the dates identified in the above schedule of compliance, the permittee shall submit to the DEQ Piedmont Regional Office, either a report of progress or, in the case of specific actions being required by identified dates, a written notice of compliance or noncompliance. In the latter case, the notice shall include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirement.